

PUBLIC HEALTH FACT SHEET

Pneumococcal Disease

Massachusetts Department of Public Health, 305 South Street, Jamaica Plain, MA 02130

What is pneumococcal disease?

Pneumococcal disease is caused by bacteria (germs) that can infect the lungs (pneumonia), the blood (bacteremia), and the membrane that covers the brain (meningitis). The disease is most likely to strike in the winter and spring, but there are cases year round. The most common symptoms are chills, fever, chest pain, shortness of breath, and a severe cough. Some people vomit or have seizures. Pneumococcal disease kills thousands of older people in the United States each year.

How is pneumococcal disease spread?

The germ is spread through contact with people who are ill with pneumococcal disease or who carry the germ in their throat. The germs that cause the disease can live in the nose and throat of many healthy children and adults without causing disease.

Who gets pneumococcal disease?

Anyone can get pneumococcal disease. Those at highest risk are very young children, people 65 years and older, people of any age who have certain chronic medical problems, and people with weakened immune systems.

Is pneumococcal disease dangerous?

Yes. It can be. Pneumococcal disease is one of the most common causes of vaccine-preventable death in this country. Every year thousands of people need hospital treatment and up to 5,500 people die because of pneumococcal disease. Pneumococcal infection is the cause of more than one-third of pneumonia in adults. It is also the leading cause of pneumonia, blood infection and ear infection in children.

How is pneumococcal disease treated?

Pneumococcal disease is treated with antibiotics. In some areas, one-third of pneumococcal infections are resistant to some antibiotics, making treatment more difficult. People with more severe cases may need to be treated in the hospital, sometimes in intensive care.

Can pneumococcal disease be prevented?

Yes. There are two vaccines to prevent it. Pneumococcal polysaccharide vaccine (PPV23) protects against the 23 pneumococcal types most likely to cause disease in older children and adults, but is only approved for people 2 years of age and older. Pneumococcal conjugate vaccine (PCV7), protects against 7 types of the pneumococcal bacteria most likely to cause infection in young children, and is approved for infants and children younger than 5 years of age.

Who should get a pneumococcal vaccine (PPV23)?

There are many reasons why someone could be at increased risk for getting pneumococcal disease and should therefore receive pneumococcal vaccine. Adults should review their need for vaccination at every visit with their health care provider, especially at 50 and 65 years of age.

PPV23 is recommended for:

- **Everyone 65 years of age and older.**
- **People who live in nursing homes or other long-term care facilities.**
- **People 2 – 64 years of age with the following medical conditions:**
 - Chronic heart or lung problems, diabetes, liver problems, cochlear implants or cerebrospinal fluid (CSF) leaks.
 - Weakened immune systems, caused by conditions such as sickle cell disease, having the spleen removed, kidney failure, cancer, organ transplants, drugs that weaken the immune systems, and HIV infection or AIDS.
 - **Most people need only one dose of pneumococcal (PPV23) vaccine. If you are 65 years of age or older or if you have a chronic health problem, talk to your doctor or nurse to find out if you need a booster. It is a good idea to keep careful records of the vaccines you receive so you will know when you need another.**

Who should get a pneumococcal conjugate vaccine (PCV7)?

- **All children 6 weeks – 23 months of age**
- **Children 2 – 5 years of age with:**
 - Chronic heart or lung problems, diabetes, liver problems, cochlear implants or cerebrospinal fluid (CSF) leaks.
 - Weakened immune systems caused by sickle cell disease, having the spleen removed, kidney failure, cancer, organ transplants, drugs that weaken the immune systems, and HIV infection or AIDS.

PCV7 can be considered for other children 24 – 59 months of age, particularly children who are known to be at higher risk, such as those who are African American, Native American or attending day care. This is normally a 4-dose schedule, if started by 6 months of age.

How safe are the pneumococcal vaccines?

Any vaccine can cause side effects in some people. Some people who get pneumococcal vaccines have a little swelling and pain in the arm where the shot was given. This usually lasts for less than 2 days. Some children getting PCV7 may have a fever that lasts a few days. Other side effects, such as aching muscles, and severe side effects, such as allergic reactions, are rare.

PPV23 and PCV7 can be given at the same time as all other vaccines, but should not be given with each other.

Where can I get more information?

- Your doctor, nurse or clinic, or your local board of health (listed in the phone book under local government).
- The Massachusetts Department of Public Health, Immunization Program (617) 983-6800 or toll-free at (888) 658-2850, or on the MDPH website at www.mass.gov/dph/.

Northeast Regional Office	Tewksbury	(978) 851-7261
Central Regional Office	West Boylston	(508) 792-7880
Southeast Regional Office	Taunton	(508) 977-3709
Metro/Boston* Regional Office	Jamaica Plain	(617) 983-6860
Western Regional Office	Amherst	(413) 545-6600

*Boston providers and residents may also call the Boston Public Health Commission at (617) 534-5611.

- **CDC National Immunization Information Hotline**
CDC-INFO 1-800-CDC-INFO (800-232-4636) 1-888-232-6348 TTY 24 Hours/Day
E-mail Address: cdcinfo@cdc.gov